[10191/2209]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

Examiner: Brian J. Broadhead

    Rainer SOMMER

For: VEHICLE CONTROLLER AND
    CONTROL METHOD

Art Unit: 3661

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APPELLANT'S REPLY BRIEF IN RESPONSE TO
EXAMINER'S ANSWER (UNDER 37 C.F.R. § 41.41)

S I R :

      In response to the Examiner's Answer mailed on June 16, 2006,
regarding the above-identified application, Applicant submits the following
arguments in support of the appeal of the final rejection.

ARGUMENTS

A. Rejection of Claims 1 to 12 under 35 U.S.C. § 112, first paragraph

Claims 1 to 12 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In support of the rejection, the Examiner makes the following contentions:

> For direct selection the specification states that one bit position is mapped to a memory location (or locations) in the code memory, but in the case of indirect selection multiple bit positions are used to find a location in code memory. How is that direct versus indirect algorithmic processing? Both ways of selection state that for a bit or bits combination look to a specific memory location or locations. (Examiner's Answer, p. 3).

As noted above, the Examiner's principal objection is that both a direct and indirect selection refer to addressing <u>a particular memory location</u> by a direct mapping of one or more bits to the particular memory location, and therefore the Examiner concludes that he cannot discern a difference between an indirect selection as recited in claim 1, and a direct selection as recited in claim 2.

In addition to the above, in the "Response to Argument" section of the Examiner's Answer, the Examiner contends that the Applicant's asserted definitions of the terms "direct selection" and "indirect selection" are not supported by the specification, and that the Applicant's explanation of the differences between the two types of selection amounts to new matter. Applicant will address these issues in detail below.

The standard for determining whether a patent application complies with the enablement requirement is "whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." (*See* M.P.E.P. § 2164.01 (citing *United States v. Teletronics, Inc.*, 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988))). As further clarified by the Federal Circuit, the factors to be considered in determining whether a specification satisfies the enablement requirement include, but are not limited to, the following: the breadth of the claims; the nature of the invention; the state of the prior art; the level of ordinary skill; the level of predictability in the art; the amount of direction provided by the inventor; the existence of working examples; and the quantity of experimentation

needed to make or use the invention based on the disclosure. (*See* M.P.E.P. § 2164.01 (citing *In re Wands*, 858 F.2d at 737, 8 U.S.P.Q.2d at 1404 and 1407)). In this regard, the Federal Circuit has also stated that it is "improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors," and that the examiner's analysis must therefore "consider all the evidence related to each of these factors" so that any nonenablement conclusion "must be based on the evidence as a whole." (*See* M.P.E.P. § 2164.01).

With respect to the definitions of the terms "direct selection" and "indirect selection," Applicant asserted that "<u>a direct selection</u> refers to a selection of a particular memory location based on a direct assignment of one or more bits to that memory location," and that "<u>an indirect selection</u> refers to a selection of a particular memory location based on an identification of a particular vehicle version." Although the Examiner notes that he "could not find these definitions in the specification," Applicant notes that the Specification clearly supports these definitions. For example, the passage on page 2, lines 2-14, of the Specification indicates the following:

A first aspect of the present invention provides a vehicle controller and a control method with which <u>control parameters of a vehicle version can be determined from a version coding without specifying this directly through a separate bit in the code word</u> according to the version coding. These parameters are determined by algorithmic processing of the version coding during operation in the controller. <u>This determination is thus indirect</u>. One advantage of the present invention is that more different vehicle versions or equipment elements can be differentiated with the same code word length.

If it is important to save on storage space for different parameter sets in the controller, then according to another aspect of the present invention, <u>parameters may also be contained directly in the code word</u> according to version coding. In this case, <u>these parameters are determined directly from the code word</u>.

Although the above-cited section of the Specification does not provide a verbatim recitation of the definitions of "direct selection" and "indirect selection," such verbatim recitation is clearly not required, and one of ordinary skill in the art looking at the above-cited section of the Specification would understand the definitions proffered by the Appellant. In an effort to further explain to the Examiner the distinction between "direct selection" and "indirect selection" concepts, Appellant provided in the Appeal Brief an

example involving the use of two bits: with <u>a direct selection</u>, i.e., direct assignment of bits to memory locations, four memory locations can be alternatively addressed; by contrast, in <u>an</u> <u>indirect selection</u>, the values of the same <u>two bits do not refer to particular memory locations</u>, but rather identify one of four possible <u>vehicle versions</u>. In indirect selection, instead of directly addressing one of four memory locations, a processing unit may address one of up to four memory locations for each of numerous memory location sets. For example, the processing unit may refer to numerous categories of vehicle functions or devices. A different set of memory locations may be assigned to each category of vehicle functions or devices. During processing, the processing unit may refer to different ones of the memory sets according to an algorithm. (See Specification, p. 3, l. 15-16). Accordingly, based on the algorithm, the processing unit may provide for <u>reading out different memory locations for the</u> <u>same two bit combination of the vehicle version code</u>, depending on the step of the algorithm being executed.

      While the Examiner contends that the above explanation involving the two-bit example is improper because the "memory location sets" mentioned by Appellant are "new matter," this line of argument by the Examiner is legally incorrect. "New matter" objection may be relevant if Appellant were somehow suggesting that the "memory location sets" were explicitly disclosed in the Specification. However, Appellant merely mentioned the "memory location sets" in the context of an example for further clarifying the definitions of "direction selection" and "indirect selection," which definitions are supported in the original Specification, e.g., page 2, lines 2-14. To the extent the Examiner is suggesting that Appellant cannot offer explanations using words not explicitly disclosed in the Specification, this suggestion is clearly incorrect. The example involving two bits is a further clarification of the above-recited statement from the Specification, i.e.:

      [C]ontrol parameters of a vehicle version can be determined from a version coding without specifying this directly through a separate bit in the code word according to the version coding. These parameters are determined by algorithmic processing of the version coding during operation in the controller. This determination is thus indirect. One advantage of the present invention is that more different vehicle versions or equipment elements can be differentiated with the same code word length. (Specification, p. 2, l. 3-9).

      With respect to the Examiner's assertion that the "only probative matter in the entire specification that helps explain what the differences are between direct and indirect

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selection can be found in the second paragraph on page 3," (Examiner's Answer, p. 6), Appellant notes that this assertion is clearly false, as evidenced above by the sections of the Specification including page 2, lines 2-14. In addition, to the extent the Examiner makes multiple speculative assertions regarding the meaning of "direction allocation" and "indirect allocation" based on the disclosure of page 3, lines 10-16, of the Specification, these speculative assertions are completely irrelevant, since the Examiner is offering <u>his personal view of what the claimed invention should be</u>. Essentially, in an attempt to justify the asserted conclusion that the differences between "direct selection" and "indirect selection" are not clear, the Examiner is making a series of speculations which conveniently support the Examiner's conclusion. However, such self-serving speculations have no relevance to objectively determining whether Appellant's claimed subject matter is adequately supported by the specification. With respect to the issue of claim interpretation, Applicants note that even if one applied the Federal Circuit cases most favorable to the Examiner's position, even if the ordinary and customary meaning of a claim term to persons skilled in the pertinent art is evident, "**Applicant may be his or her own lexicographer** as long as the meaning assigned to the term is not repugnant to the term's well known usage."

Independent of the above, Appellant notes that the Examiner's interpretation of the paragraph spanning lines 8-20 on page 3 of the Specification is completely incorrect. In this regard, the Examiner appears to believe that the phrases "allocated directly" and "allocated indirectly" found on page 3, lines 10-13 of the Specification directly refer to the claimed "direct selection" and "indirect selection." However, the discussion on page 3, lines 10-13 of the Specification merely relates to possible association of the contents of the application data memory 30 to either "individual items of information" or "certain combinations of information" of the code word memory 10, and this discussion does not define the claimed "direct selection" and "indirect selection." As noted in the Specification, code word memory 10 contains "information regarding the vehicle allocated to the controller," (p. 2, l. 30 – p. 3, l. 1), and memory 30 contains "data or engine characteristics maps for the individual elements of the vehicle equipment." (P. 3, l. 4-6). In contrast to the Examiner's belief, the entire discussion on page 3 of the Specification (in connection with Fig. 1) relates to "indirect selection," as can be seen from the subsequent elaboration in the Specification: "**the** choice of the (version-specific) reduction ratio of the generator . . . can **thus be made** on the basis of vehicle body-specific particulars and/or the engine type (i.e., **indirectly**). (P. 3, l. 31 – p. 4, l. 4). This discussion is contrasted with the discussion on page

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4, lines 6-7 of the Specification (in connection with Fig. 2), which section indicates that "individual parameters may be written directly to the memory for the version coding," consistent with the earlier disclosure on page 2, lines 12-14 of the Specification that "parameters may also be contained directly in the code word according to version coding. In this case, these parameters are determined directly from the code word."

With respect to the Examiner's assertion that the "specification never discloses that indirect selection using the algorithm is dependent on the step the algorithm is currently executing," Appellant notes the following passage in the Specification: "According to the algorithmic processing in unit 20, selector unit 40 is then controlled to access the respective memory locations in application data memory 30." (P. 3, l. 15-16).

In view of the foregoing, Appellant submits that the Specification provides ample support for the features of a direct and indirect selection of control parameters recited in claims 1 and 2, and therefore the Specification enables one skilled in the pertinent art to practice the claimed subject matter of claims 1 to 12 without undue experimentation.

Reversal of the non-enablement rejection is respectfully requested.

B.   Rejection of Claims 1 to 5, and 7 to 11 under 35 U.S.C. § 103(a)

Claims 1-5 and 7-11 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the Manual and Gormley. It is respectfully submitted that the combination of the Manual and Gormley does not render unpatentable any of claims 1, 2, and 5 for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck &

Co., Inc. , 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a " basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claim 1 recites the following:

1. A vehicle controller designed for a plurality of different vehicle versions, comprising:
        means for storing a plurality of control parameters for the different vehicle versions;
        means for storing a version coding for customizing the vehicle controller for a predetermined vehicle version, the version coding having a plurality of bit positions; and
        means for indirect selection of control parameters from the means for storing control parameters by algorithmic processing of values of a plurality of bit positions of the version coding.

Claim 7 recites the following:

7. A control method for a vehicle controller designed for a plurality of different vehicle versions and having access to a plurality of control parameters for the vehicle versions, the method comprising:
        version coding for a vehicle version for customizing the vehicle controller; and
        selecting control parameters of the vehicle version by algorithmic processing of values of a plurality of bit positions of the version coding.

With respect to the Examiner's assertion that "it is inherent that any numerical value entered into a computer is going to transfer into binary and have bit positions," this assertion is still irrelevant as to whether the Manual discloses an indirect selection of control parameters by algorithmic processing of values of a plurality of bit positions, and means for such selection. The Manual provides no indication as to how bits that may represent the entered code are processed, and the Manual clearly does not disclose or suggest an indirect selection of control parameters by algorithmic processing of values of bit positions.

Furthermore, the table on page 1-32 of the Manual indicates that for each value in a code position or position-combination, the value is directly assigned to particular equipment, a market version, cylinders, or a distance impulse number. The code is not processed so that a single value can refer to different things depending on the step of an algorithm being executed. Accordingly, even if one assumes for the sake of argument that the Manual refers to a selection, which Applicant does not concede, the Manual still would not refer to an _indirect_ selection. In this regard, it is once again noted that if any particular selection type is inherent at all in the disclosure on page 1-32 of the Manual (which Appellant does not concede), the selection would be a direct selection by single bit positions, not an indirect selection.

Accordingly, the Manual does not disclose or suggest an "_indirect_ selection of control parameters . . . by algorithmic processing of values of a plurality of _bit positions_ of the version coding," as recited in claim 1, and as similarly recited in claim 7.

Since Gormley does not overcome the deficiencies noted above with respect to the Manual, it is respectfully submitted that the combination of the Manual and Gormley does not render unpatentable claims 1 and 7.

As for claims 2-5, which depend from claim 1, and as for claims 8-11, which depend from claim 7, it is respectfully submitted that the combination of the Manual and Gormley does not render unpatentable these dependent claims for the same reasons set forth above in support of the patentability of claim 1. _In re Fine_, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) (any dependent claim that depends from a non-obvious independent claim is non-obvious).

Independent of the above, to the extent the Examiner contends that the Manual discloses that "whether the vehicle is 4 or 6 cylinder is entered as part of the code word," and that this is "clearly a control parameter," Appellant notes that this assertion is clearly false: the number of cylinders is an example of available equipment, rather than any control parameter.

In view of all of the foregoing, reversal of this rejection of claims 1-5 and 7-11 is respectfully requested.

C. Rejection of Claims 6 and 12 Under 35 U.S.C. § 103(a)

Claims 6 and 12 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the Manual, Gormley, and Becker et al. It is respectfully submitted that the combination of the Manual, Gormley, and Becker et al. does not render unpatentable claim 6 for at least the following reasons.

Claim 6 ultimately depends from claim 1, and claim 12 ultimately depends on claim 7. Becker et al. do not correct the deficiencies of the combination of the Manual and Gormley noted above with respect to claims 1 and 7. It is therefore respectfully submitted that the combination of the Manual, Gormley, and Becker et al. does not render unpatentable dependent claims 6 and 12 for at least the same reasons set forth above in support of the patentability of claims 1 and 7.
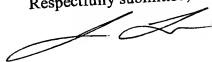
Reversal of the rejection of claims 6 and 12 is therefore respectfully requested.

CONCLUSION

For at least the reasons indicated above, Appellant respectfully submits that the art of record does not disclose or suggest the subject matter as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the subject matter recited in the claims of the present application is new, non-obvious and useful.

In view of all of the foregoing, reversal of all of the rejections set forth in the Final Office Action is therefore respectfully requested.

Respectfully submitted,

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